

MATERIAL SAFETY DATA SHEET

REF: MSDS2 ISSUE 2 DATE: 19.2.2009

NICKEL WIRECLOTH

1. PRODUCT AND COMPANY IDENTIFICATION

Manufacturer/Supplier	United Wire Granton Park Avenue Edinburgh EH5 1HT
Telephone Number	0131 552 6241
Fax Number	0131 552 8462
Web Address	http://www.unitedwire.com/
Contact	QA Dept

2. COMPOSITION / INFORMATION ON INGREDIENTS

	NA11	NA13	NA17	Special High Grade Nickel Alloy
% Nickel (incl. up to 2% Cobalt)	99.2 min.	63.0 min.	34.5 - 41.0	-
% Nickel (incl. up to 1% Cobalt)				Remainder
% Copper	0.25	28.0 - 34.0	0.50	0.1
% Iron	0.40	2.5	Remainder	0.4
% Chromium	-	-	17.0 - 19.0	
% Carbon	0.15	0.3	0.10	0.02
% Silicon	0.35	0.5	1.9 - 2.6	0.01
% Manganese	0.35	2.0	0.8 - 1.5	0.01
% Sulphur	0.01	0.024	0.03	0.005
% Titanium	0.10	-	0.20	
% Magnesium	0.20	-	-	0.005
% Aluminium	-	-	-	0.005

3. HAZARD IDENTIFICATION

There are no hazards for man or the environment from nickel wirecloth in the form supplied.

Nickel is classified in EC directive 67/548/EEC as a suspect carcinogen (category 3 – R40) and as a skin sensitiser (R43). Dust and fume may be generated during processing e.g. in welding, cutting and grinding, In the event that airborne concentrations of dust or fume exceed occupational exposure limits workers health may be affected.

4. FIRST AID MEASURES

Inhalation

Not applicable to wirecloth in the form supplied. Inhalation of dust and /or fume from grinding, welding and cutting is unlikely to generate the need for specific first aid.

Skin & Eye Contact

Not applicable to wirecloth in the supplied form. In the event of physical injury to the skin seek appropriate first aid treatment. In the event of physical injury to the eyes seek immediate medical attention.

Ingestion

Not applicable to wirecloth in the form supplied.

5. FIRE FIGHTING MEASURES

Extinguishing Media	Not combustible
Special Hazards of Products	This product may give rise to irritant fumes in a fire
Protective Equipment for Firefighting	Wear self contained breathing apparatus

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Not applicable
Environmental Precautions	Not applicable
Spillages	Not applicable

7. HANDLING AND STORAGE

Under normal circumstances the materials do not produce any hazardous products and as such do not require any special precautions in storage. The transient handling of the materials would not be expected to produce any sensitisation, however all materials may carry a thin film of oil lubricant; it is therefore recommended that gloves are used for handling. Hands should be washed with soap and water before eating, drinking or smoking. The normal precautions for handling heavy metallic objects with possible sharp edges should also be observed.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

OCCUPATIONAL EXPOSURE LIMITS (EH40:2003)

Exposure Limits			
Component	Limit	8hr TWA mg/m ³	15 min TWA mg/m ³
Chromium, & its Cr (II) & Cr (III) Compounds	OES	0.5	---
Chromium (VI) compounds	MEL	0.05	---
Nickel, soluble compounds	MEL	0.1	---
Nickel, insoluble compounds	MEL	0.5	---
Nickel, organic compounds	OES	1	---
Manganese Fume	OES	1	3
Copper & its compounds	OES	0.2	---
Copper Dust	OES	1	2
Iron Oxide, Fume	OES	5	10
Welding Fume, total	OES	5	---
Aluminium Metal	OES		
total inhalable dust		10	
respirable dust		4	
Other			---

Engineering Control Measures Engineering methods to prevent or control exposure are preferred. Methods include process or personnel enclosure, mechanical ventilation (dilution and local exhaust) and control of process conditions.

Respiratory Protection Respirator fitted with P3 filters.

Hand Protection Heat resistant gloves when carrying out hot work.

Eye Protection Welding visor / goggles when carrying out hot work.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Solid; metallic grey ranging from dull to bright polished
 Odour : Odourless
 Water Solubility : Insoluble
 Melting Point : 1350°C - 1480°C
 Density : 7.9 – 8.9kg/dm³

10. STABILITY AND REACTIVITY

The product is stable under normal conditions but when subjected to elevated temperatures (welding & burning) fumes are produced. May react with strong acids to release gaseous acid decomposition products e.g. hydrogen and oxides of nitrogen

11. TOXICOLOGICAL INFORMATION

Mechanical working such as dry grinding and machining will produce dust of the same composition as the base metal.

The principal mode of entry into the body is by inhalation and if airborne concentrations are excessive (see EH40) over long periods of time they may have a long term effect on the health of the worker, primarily affecting the lungs. Nickel is a known respiratory sensitiser. Occupational asthma due to respiratory sensitisation to nickel salts has been recorded in the electroplating, metal polishing, catalyst reprocessing and stainless steel welding industries. Metallic nickel and its salts are potent skin sensitisers.

Welding and flame cutting of stainless steel mat produce fume containing hexavalent chromium compounds (Cr(VI)) some studies have shown that some Cr(VI) compounds can cause cancer in the electroplating industry, however studies amongst welders indicate that no extra increased risk arises from welding stainless steel.

12. ECOLOGICAL INFORMATION

No known harmful effects.

13. DISPOSAL CONSIDERATIONS

Recycle preferentially. Should waste disposal be deemed necessary follow national or regional regulations which may be in force.

14. TRANSPORT INFORMATION

No special precautions.

15. REGULATORY INFORMATION

Not applicable.

16. OTHER INFORMATION

R40 Limited evidence of carcinogenic effect
R43 May cause skin sensitisation
S22 do not breathe dust
S36 wear protective clothing

The information given in this safety data sheet is based on the present level of our knowledge and experience. The data sheet describes the products with respect to safety requirements. This information does not constitute an assessment under the Control of Substances Hazardous to Health Regulations 2002.

Amendment Record

Issue 2 - COSHH Regulations were previously 1999.

CIRCULATION –

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